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MONTHLY LETTER OF THE BUREAU OF ENTOMOLOGY.  
U. S. DEPARTMENT OF AGRICULTURE.

NUMBER 19.

NOVEMBER, 1915.

ADDITIONAL NOTE ON LABELING PARASITES.

Mr. Harry S. Smith, of Sacramento, Cal., noting my suggestion in the last Monthly Letter in regard to labeling of parasites, suggests that where one is not absolutely certain of the host the label should be qualified in some way. He has adopted the plan of using the word "material." For example, if he has a box of scale insects of a certain species and rears parasites from it, he labels the parasites, say, "From *Saissetia oleae* material." There are so many times a few individuals of some other species present but not visible that this is frequently a cause of erroneous records, and such a label as suggested immediately puts the parasitologist on his guard.

Among the visitors at the Bureau during the month were, Edw. D. Harris, of Massachusetts, son of Thaddeus W. Harris, and E. C. Green, formerly of the Bureau of Plant Industry but now in charge of the cotton work of the Brazilian Government.

LIBRARY.

Miss Mabel Colcord, Librarian.

NEW BOOKS.

Ausschusses zur bekämpfung der dasselplage. Mitteilungen 1-6.  
Berlin, 1912-1914.

British Columbia entomological society. Proceedings, new series.  
Nos. 5, 6 and 7. Victoria, B.C., 1915.

Gt. Britain. Board of Agriculture and fisheries. Miscellaneous publication no. 4. Poultry and bees; their breeding and management. London, 1914. 104 p.

HEWITT, C. G. Observations on the feeding habits of the stable fly, *Stomoxys calcitrans* L. (Royal society. Canada. Trans. ser. 3, vol. 8, sec. 4, p. 37-42, 1 plate, 1 table. Ottawa, 1914)

NELSON, JAMES A. The embryology of the honey bee. Princeton, 1915. 282p. illus., plates. Bibliography: p. 265-272.

PEARCE, E. K. Typical flies. Cambridge, 1915. 47p. illus.

Postal laws and regulations applying to the rural mail service. 1915. 144p. 18cm.



San Pedro citrus pathological laboratory. 1st annual report, May, 1915. San Pedro, Isle of Pines, West Indies. Columbus, Ohio, 1915. 41p. illus.

U.S. Treasury Dept. Public Health Service. Miscellaneous publication no. 12. Publications of the Public Health Service. September, 1915.

#### BEE CULTURE.

E. F. Phillips, In Charge.

In cooperation with the Office of Home Economics of the States Relations Service, a series of experiments are being conducted with a colony of bees placed in a respiration calorimeter. The object of these experiments is to determine the exact quantity of heat given off by the bee colony under different conditions in regard to the temperature, humidity, and the carbon dioxid and oxygen content of the surrounding air. The water vapor and the carbon dioxid given off by the bees under these different conditions are also determined.

Mr. W. A. Parks, of Washington, D. C., has been appointed as Student Assistant and assigned to the work referred to above.

The packing of the bees for winter has just been completed. This has been accomplished by a method hitherto not employed in this apiary and commonly not used so far south. The hives are placed in groups of four and each group is surrounded by a large wooden case, built of 7/8-inch boards, the space intervening between the hives and case being filled with sawdust. The dimensions of the cases are such that a layer of sawdust 6 inches in thickness on the sides, 4 inches on the bottom and 12 inches on top surround the outer surfaces of the hives. Passage ways are provided for the ingress and egress of the bees. It is expected that this method will bring the bees through the winter in much better condition than formerly, since recent investigations of this office have indicated that bees commonly suffer from insufficient protection in winter.

#### CEREAL AND FORAGE INSECT INVESTIGATIONS.

F. M. Webster, In Charge.

Mr. V. L. Wildermuth, who spent some time in the office in the preparation of manuscript, has returned to his field station at Tempe, Ariz.

Mr. R. N. Wilson, who spent a part of the month in the office preparing manuscript, has returned to his field station at Gainesville, Fla.

The connections of temporary appointees, Messrs. C. H. Alden, W. B. Cartwright, and H. L. Dozier, have been severed on account of

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[illegible]

Mr. H. M. Smith was born at ...  
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expiration of the periods for which they were employed.

Dr. Henry Fox, who has been stationed temporarily, during the summer, at Tappahannock, Va., has returned to his field station at Charlottesville, Va.

#### DECIDUOUS-FRUIT INSECT INVESTIGATIONS.

A. L. Quaintance, In Charge.

Mr. E. H. Siegler, who is engaged in investigations of the codling moth in Grand Junction, Colo., has arrived in Washington and will be engaged during the winter in the preparation of notes, manuscripts, etc.

Mr. E. W. Geyer, who has spent the summer at Roswell, N. Mex., in orchard spraying and dusting work, has returned to Washington for conference and for the completion of the report on the life history of the codling moth in New Mexico.

Mr. E. B. Blakeslee has returned to Washington from his field station, Winchester, Va.

Mr. B. R. Leach has returned to Washington from his headquarters at Winchester, Va.

Mr. Dwight Isely has returned to Washington from the North East Pa., laboratory, where special attention was given during the summer to field experiments in the control of the grape-berry moth.

Mr. R. A. Cushman, of the North East, Pa., laboratory, has returned to Washington and will be engaged during the winter in monographic work on parasitic Hymenoptera.

Mr. E. R. Van Leeuwen, who has been assisting Mr. Siegler in codling moth investigations at Grand Junction, Colo., has been transferred to the Bureau of Entomology field station at Benton Harbor, Mich. Mr. Van Leeuwen will shortly leave the service to resume his college studies.

Mr. A. I. Fabis, connected with the laboratory at Monticello, Fla., engaged in pecan insect investigations, has returned to Washington for the purpose of conference and library work.

#### FOREST INSECT INVESTIGATIONS.

A. D. Hopkins, In Charge.

In a memorandum to this office dated November 6, 1915, Dr. W. D. Hunter, in charge, Southern Field Crop Insect Investigations, stated: "The recent hurricane injured practically every building in New Orleans, La., more or less, and hundreds were completely demolished.

\*\*\*\* Many of the exposed beams were mined by insects and in many

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cases at least this weakening of the timbers was an important contributory cause of the loss".

The insects usually responsible for this type of injury are termites and "powder post" beetles. Damage to timbers of buildings by termites is occasionally serious even in the Northern States. "Powder post" beetles also often seriously injure the beams of buildings. But this is the first instance of the interrelation of storms and insects in the destruction of buildings that has come to our notice, although similar interrelation between insects and storms in the destruction of telephone and telegraph poles has been commonly noted.

We will be glad to receive specimens of the insects or insect damaged wood from buildings in the region of the storm above referred to.

Mr. Rohwer has just completed a summary of the first year's growth of the nursery connected with the Eastern Field Station. This nursery now consists of twenty-three species of deciduous trees which are represented by one hundred and thirty specimens. There were one hundred and thirty-nine planted, which makes a loss of nine. Of these one hundred and thirty trees, eleven are at present used in experiments to determine the life history of insects injurious to forest trees. Some very useful experiments are being carried on with trees of *Robinia pseudacacia* to determine the life history of *Ectydolopha insiticihana*. These experiments are under the direction of Mr. Heinrich.

The coniferous nursery is composed of three species of *Abies*, two species of *Larix*, three species of *Picea*, fifteen species of *Pinus* and one species of *Pseudotsuga*, a total of twenty-four species. There were twenty-one hundred and ninety-nine coniferous trees planted. Of these, fourteen hundred and sixty-six are living, which means a loss of thirty-three and one-third per cent. Thirty of the coniferous trees are now used as experiments. Most of these experiments are for various species of *Evetria* and *Diprion*. Some of the coniferous trees which have done especially well are *Pinus ponderosa*, *resinosa*, *sylvestris* and *divaricata*. The two species of *Larix* show marked difference in their adaptability to eastern conditions. In the plot of *Larix occidentalis* there are only ten trees living, ninety-two having been killed by the summer. In the plot of *Larix leptolepsis* (Japanese larch) there are sixty-five living trees and some of these have made phenomenal growth.



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SOUTHERN FIELD CROP INSECT INVESTIGATIONS.

W. D. Hunter, In Charge.

Mr. D. L. Van Dine arrived in Washington near the end of November and will remain for several weeks.

Mr. A. H. Jennings will be on furlough for the month of December on account of ill health.

Mr. H. H. Kimball returned to Agricultural College, Miss., from New Orleans on the 15th of November. He will make a local malaria mosquito survey of the vicinity of the College during the winter.

Mr. F. L. McDonough completed the determination of the boll weevil dispersion in Florida during the month.

J. D. Smith and J. U. Gilmore, who arrived in Washington on November 4, were compelled to return to their homes on November 27 on account of illness.

Mr. B. R. Coad, in charge of the Tallulah Laboratory, was in Washington for a conference during the month.

Mr. T. E. Holloway has declined a position in the Hawaiian Sugar Planters' Experiment Station.

Mr. A. C. Morgan visited the tobacco districts of North Carolina and Florida during the month.

TRUCK CROP AND STORED PRODUCT INSECT INVESTIGATIONS.

F. H. Chittenden, In Charge.

G. E. Benschel, collaborator, has been appointed Supervising Agriculturist of all of the Southern California Sugar Companies for the purpose of improving the present cultural method of the sugar beet crop, and to supervise the combating of various enemies affecting this crop, especially nematodes. His headquarters are Los Angeles, Cal.

In the work on the potato-tuber moth, which has been carried on for some time, thirteen parasites and one hyperparasite have been studied by Mr. John E. Graf.

In the District of Columbia, Dr. Chittenden has found that the abutilon moth (*Cosmophila erosa*) has not appeared on abutilons at all; a few have been found on hollyhocks; and four individuals were taken from morning-glory. Two of these looked perfectly healthy when received, were full grown, and had the characteristic markings on the back. All four died owing to the attack of the minute egg-parasite *Litomastix* (*Copidosoma*) *truncatellum*. This latter species has been very abundant during the year and has perhaps been more instrumental in keeping down the numbers of the cabbage looper (*Autographa brassicae* Riley) than any other single cause.

